

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

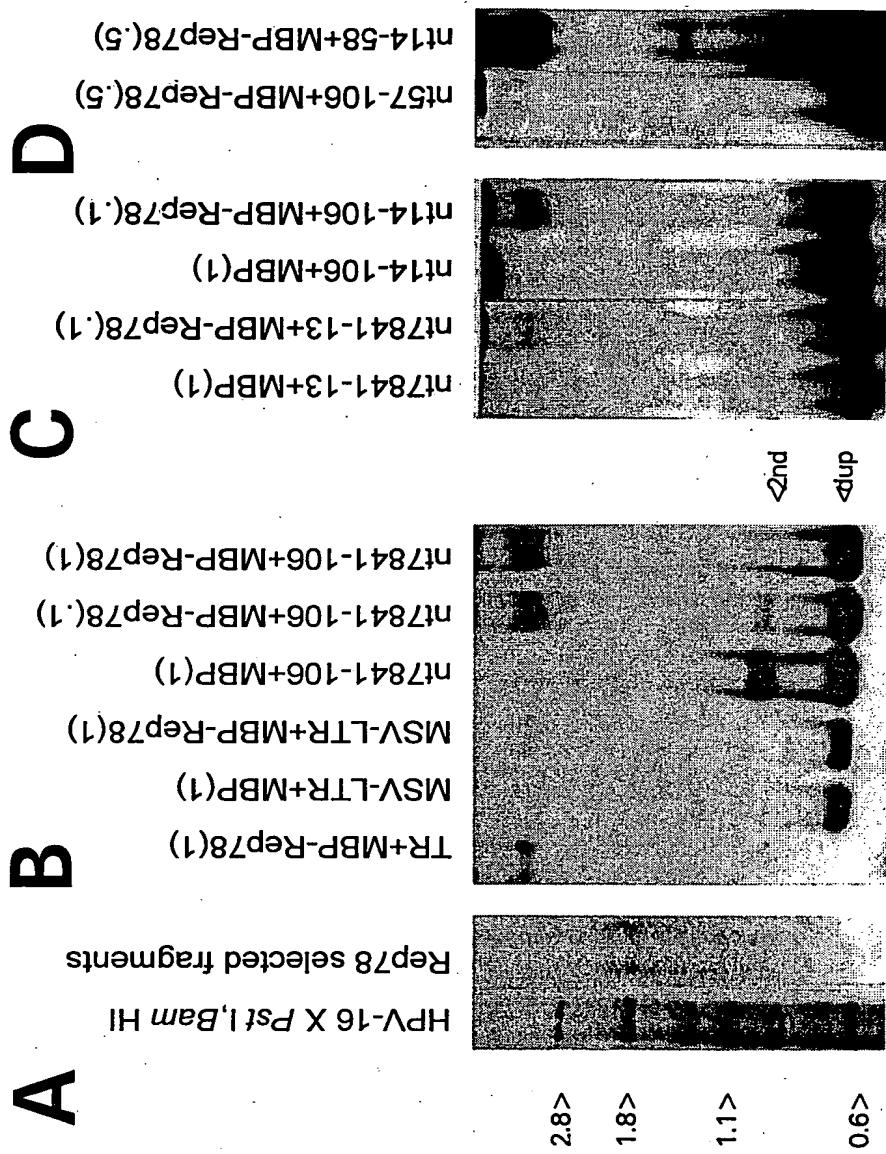
Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

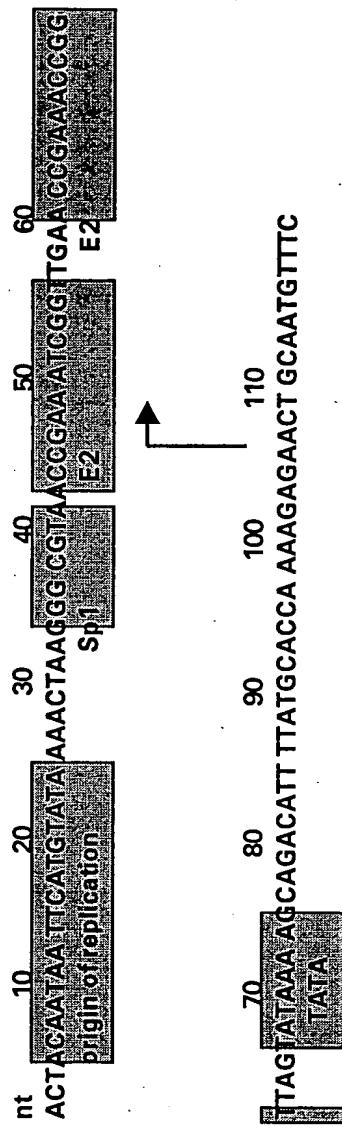
## IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.

# FIGURE 1



## FIGURE 2



**FIGURE 3**

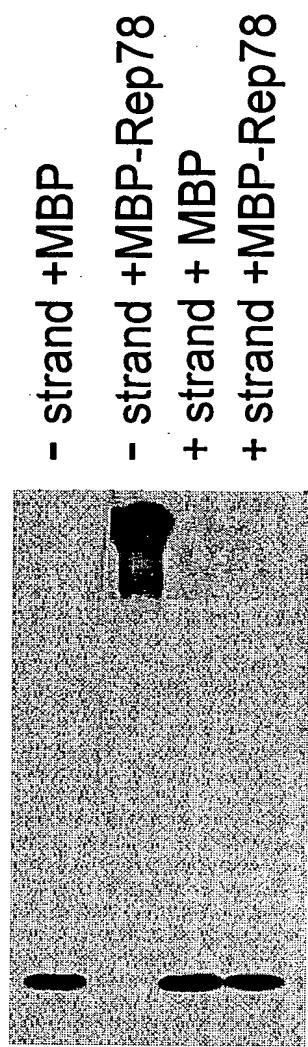
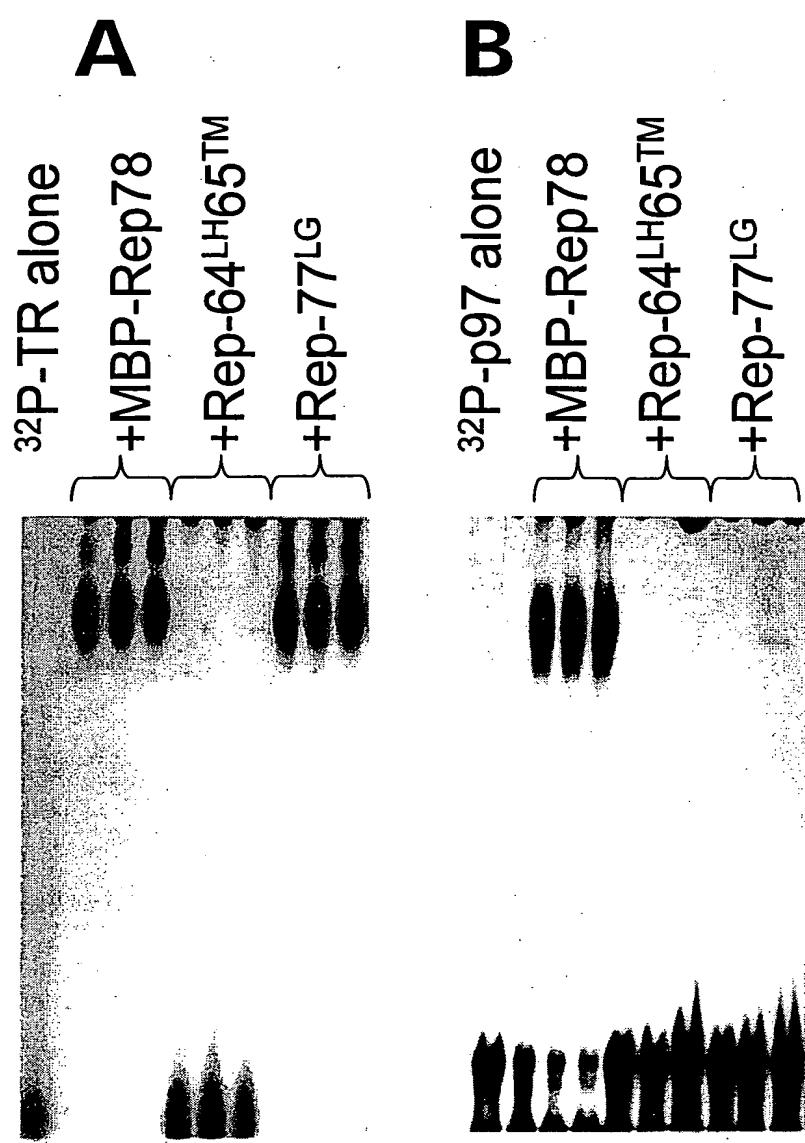
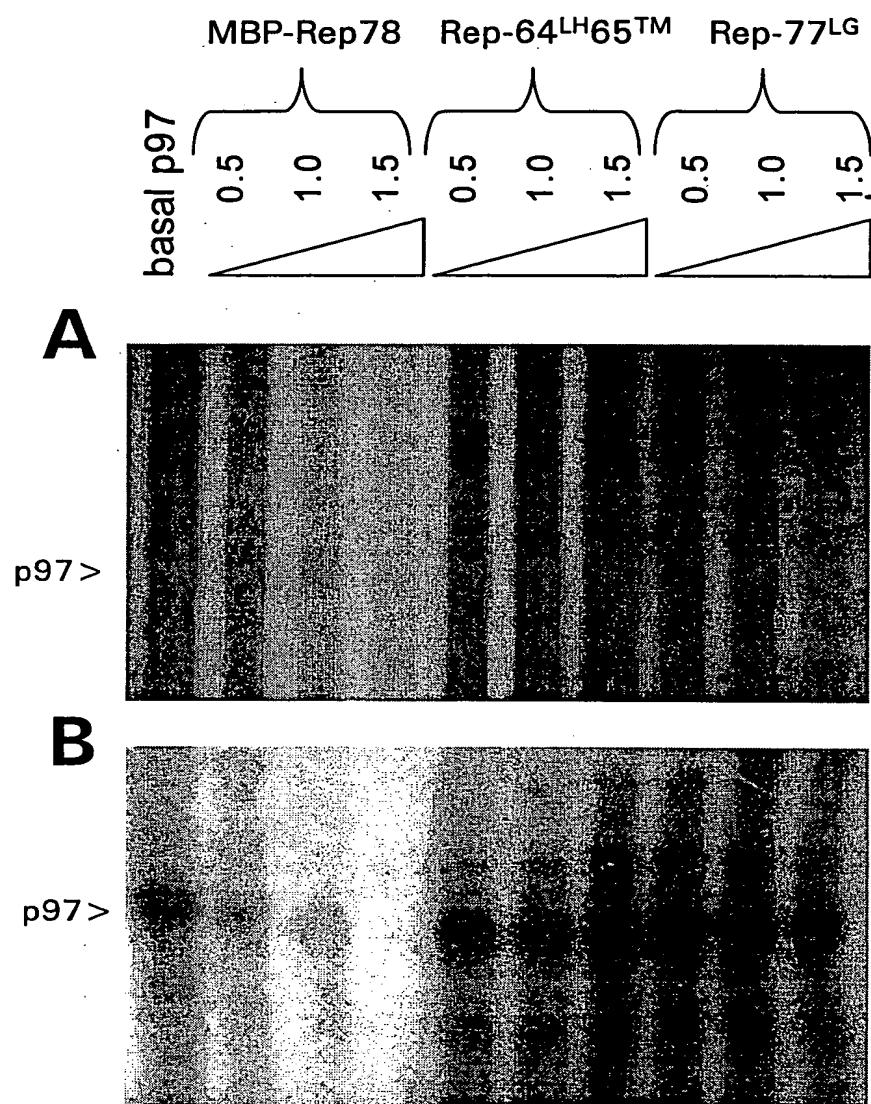


FIGURE 4

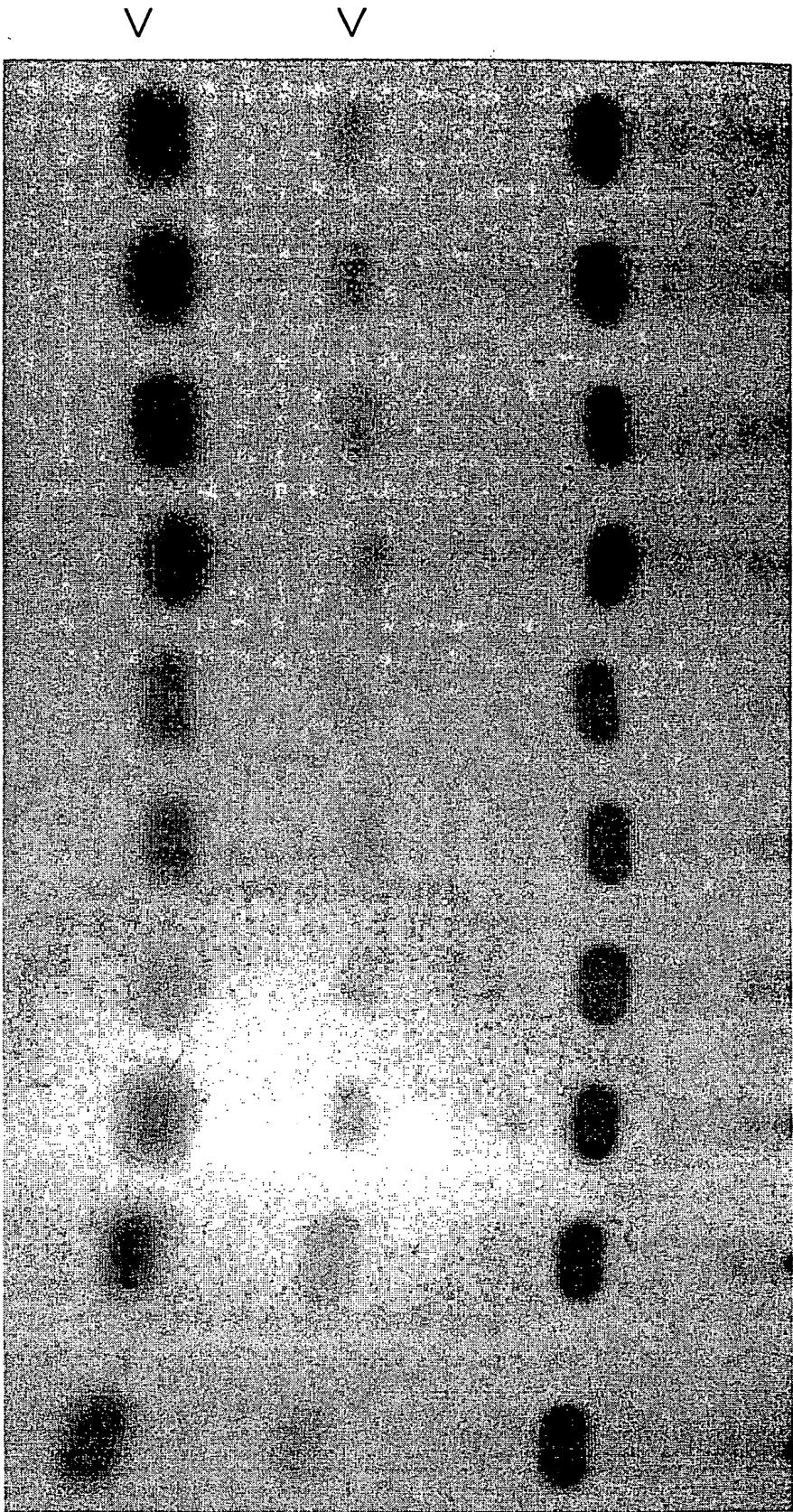
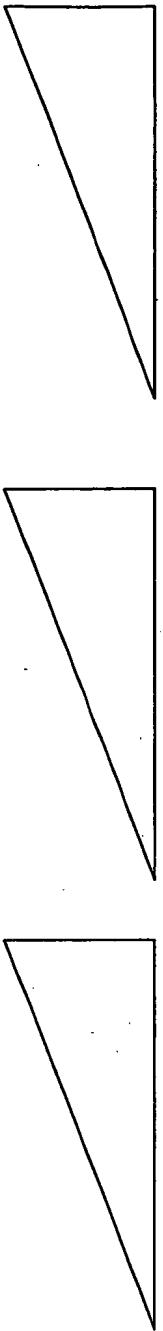


**FIGURE 5**

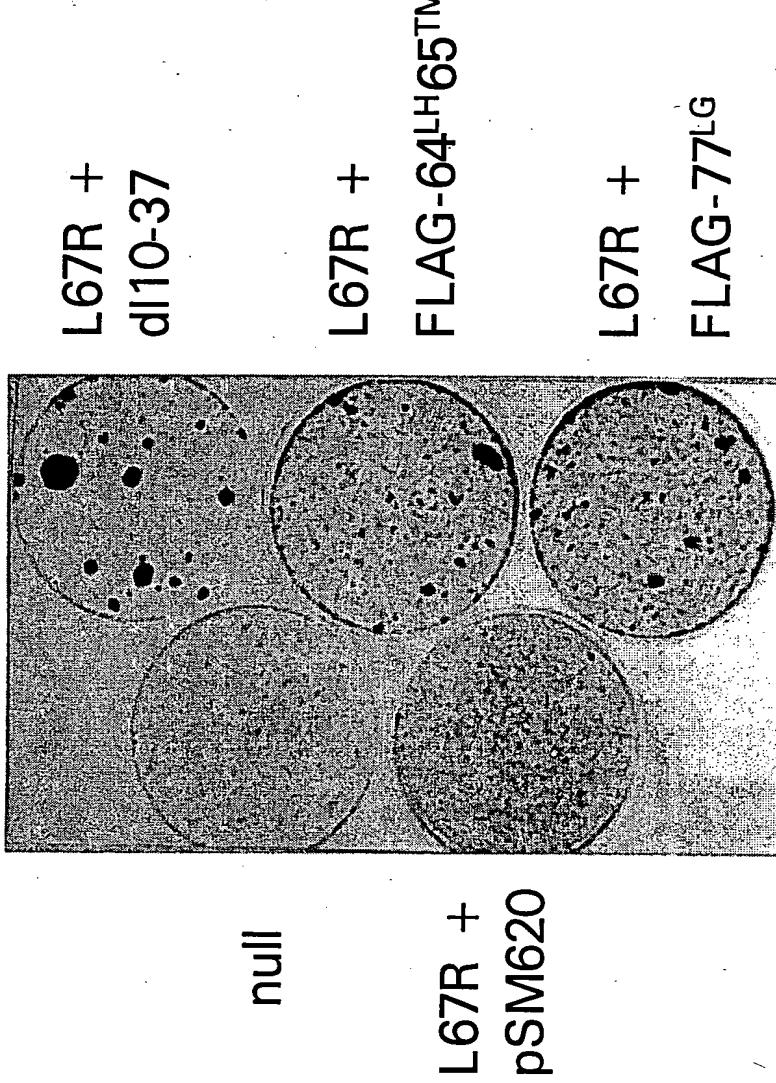


pSM620 FLAG-64LH65<sup>TM</sup> FLAG-77LG

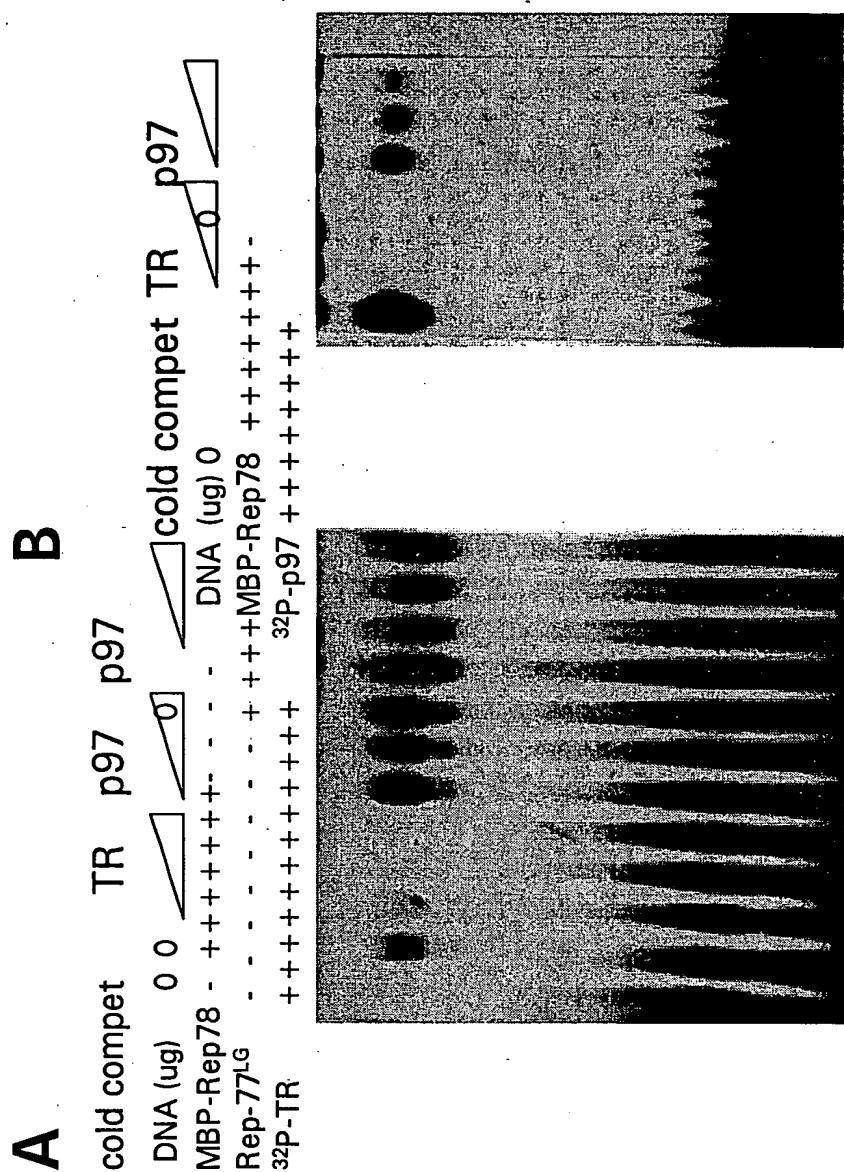
d10-37  
P16P +



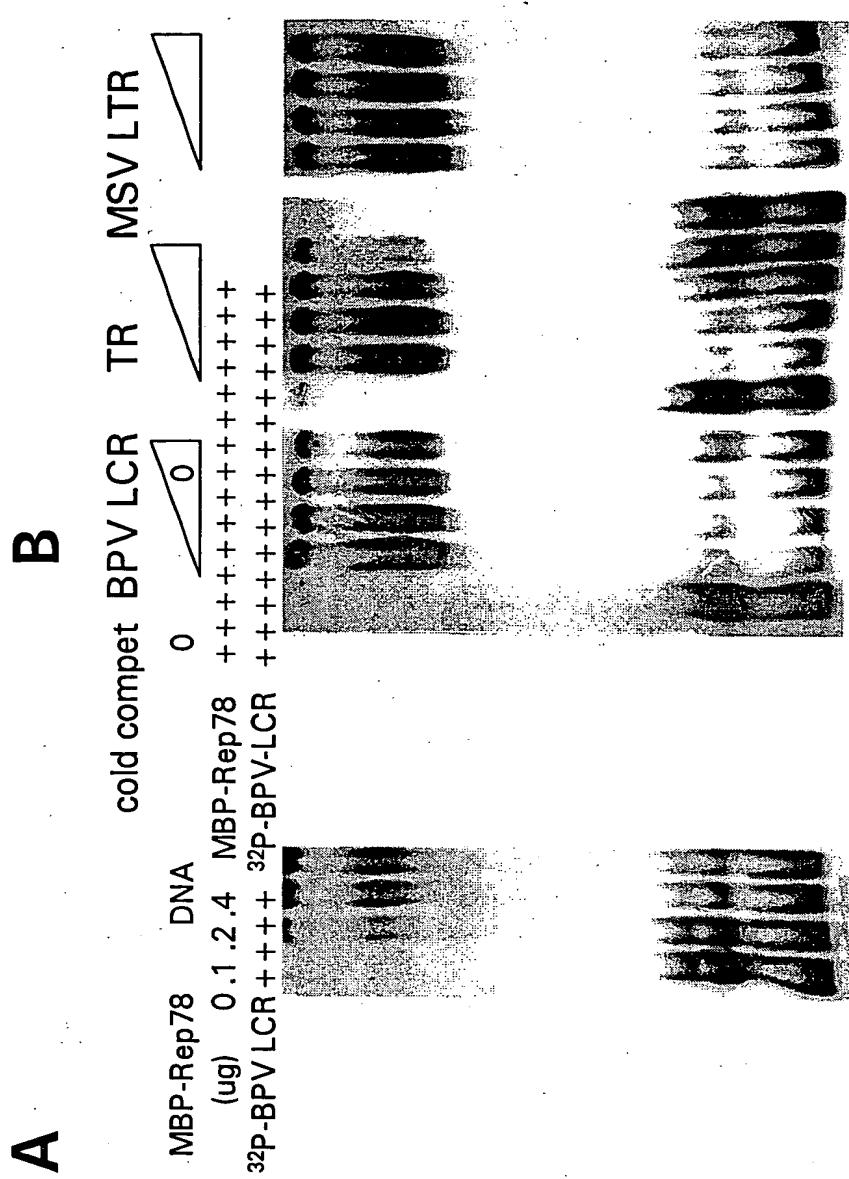
**FIGURE 7**



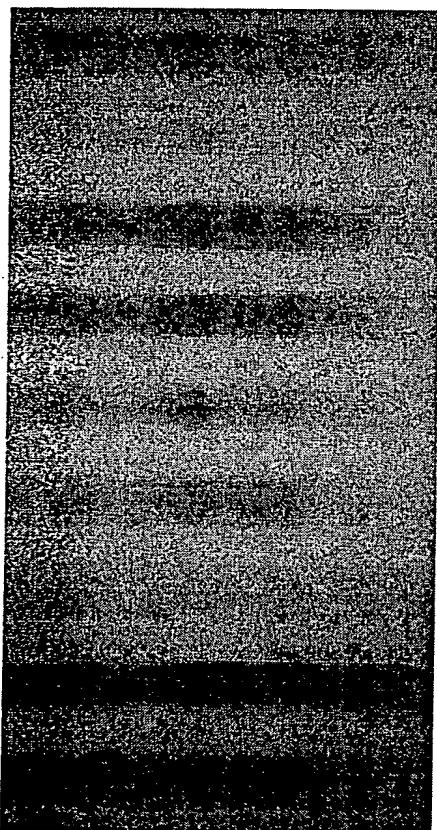
## FIGURE 8



## FIGURE 9



b5v



**MBP**

**MBP-Rep78**

**Rep-64<sup>LH</sup>65<sup>TM</sup>**

**Rep-77<sup>LG</sup>**

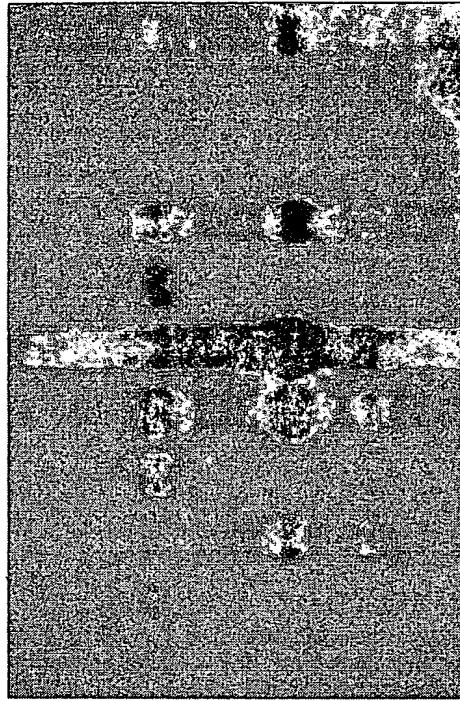
**Rep-79<sup>FA</sup>**

**Rep-105<sup>LS</sup>**

**Rep-192<sup>HG</sup>**

**Rep-331<sup>WG</sup>**

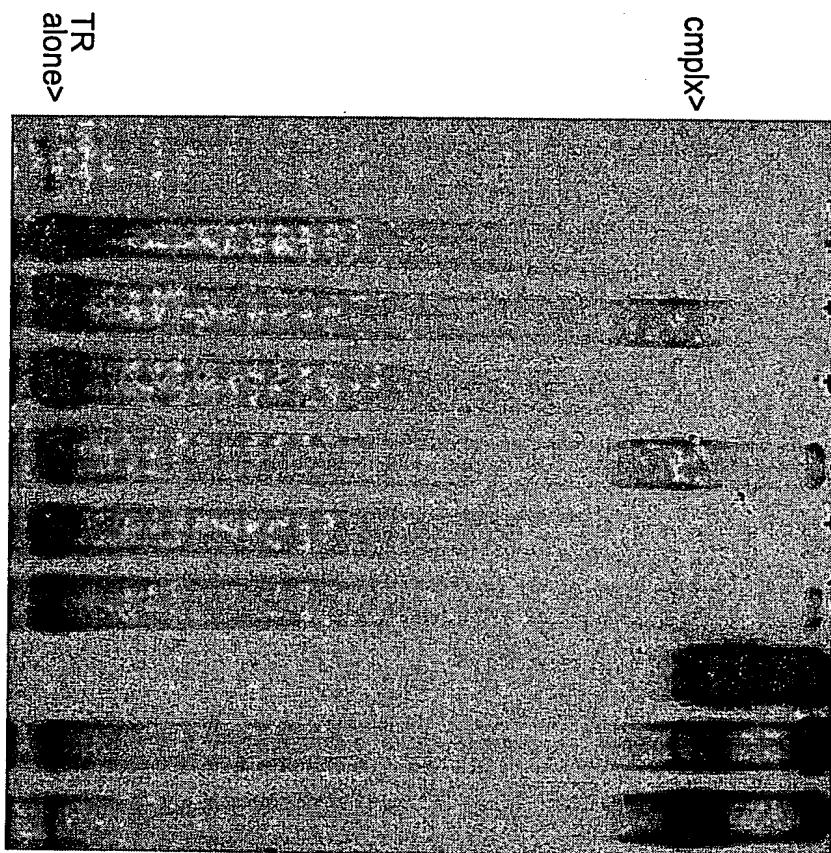
**Rep-340<sup>KA</sup>**



md>

- marker
- blank
- Ad alone
- pSM620/*Sph*
- FLAG-64<sup>LH</sup>65<sup>TM</sup>
- FLAG-77<sup>LG</sup>
- FLAG-79<sup>FA</sup>
- FLAG-105<sup>LS</sup>
- FLAG-192<sup>HG</sup>
- FLAG-331<sup>WG</sup>
- FLAG340<sup>KA</sup>

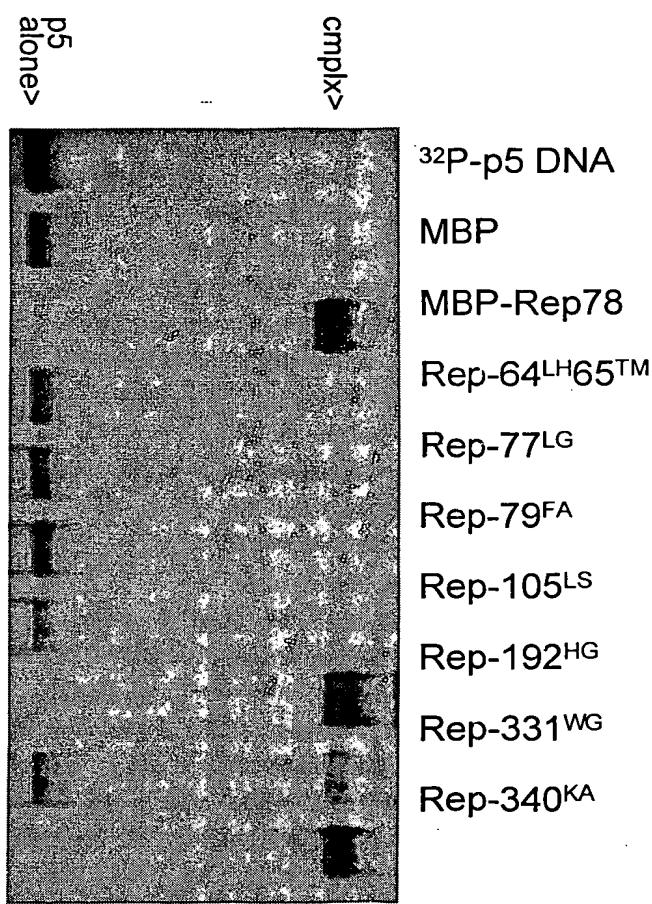
FIGURE 11



MBP  
MBP-Rep78  
Rep-64<sup>LH</sup>65<sup>TM</sup>  
Rep-77<sup>LG</sup>  
Rep-79<sup>FA</sup>  
Rep-105<sup>LS</sup>  
Rep-192<sup>HG</sup>  
Rep-331<sup>WG</sup>  
Rep-340<sup>KA</sup>

FIGURE 12

Figure 13



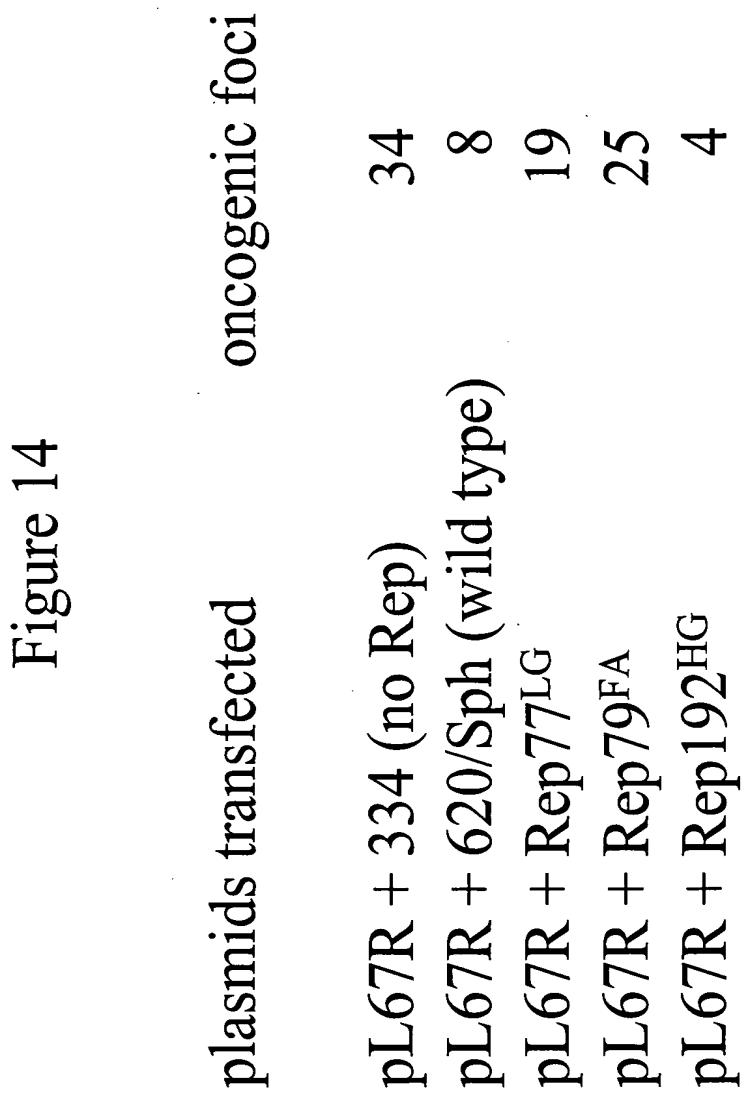


FIGURE 15A

1	ttagccactc	cctctctgctcg	cgctcgctcg	ctcaactgctcg	cc999cgac	aaagggtcgcc
61	cgacgccccgg	gtttgtccccgg	ggcgccctca	gtgaggcggc	gaggcgccag	agagggagtg
121	gc当地actcca	tcaacttagggg	ttccctggagg	ggtggagg	tgacgtatcg	tacgtcatag
181	ggtttagggag	gtccctgtatt	agaggtcactg	tgagtgtttt	gca	gacat
241	gtggtcacgc	tgggtatata	agcccgagtg	agcacgcagg	gtctccatt	tgaagcggga
301	ggtttgaacg	cgcaggccggc	atgcgggggt	tttacgagat	tgtgattaag	gtccccagcg
361	accttgacgg	gcattgtccc	ggcatttctg	acaqctttgt	gaactgggtt	gcccagaagg
421	aatgggagtt	gccggccagat	tctgacatgg	atctgaatct	gatttagcag	gcacccctga
481	ccgtggccga	gaagctgcag	cggactttc	tgacggaaatg	gcgcgcgtgt	agtaaggccc
541	cggaggccct	tttcttttgt	caatttgaga	aggagagag	ctacttccac	atgcacgtgc
601	tcgtggaaac	cacgggggt	aaatccatgg	ttttggacg	tttccctgagt	cagattcgcg
661	aaaaactgtat	tcagagaatt	tacggggga	tcgaggccgac	tttgc	aaac
721	tcacaaaagac	cagaaatggc	gccggaggcg	gaaacaagg	gttggatgag	tgctacatcc
781	ccaaattactt	gctccccc	accagccctg	agctcccgatg	ggcgtggact	aatatggAAC
841	agtatttaag	ccctgtttt	aatctcacgg	agcgtaaacg	gttgggtggcg	cagcatctga
901	cgcacgtgtc	cgagacgcag	gaggagaaca	aagagaatca	gaatccaat	tctgatgcgc
961	cggtgatcag	atcaaaaact	tca	atcgccagg	acatggagct	ggtgggtgg
1021	aggggattac	ctcgggaaag	cagtggatcc	aggaggacca	ggccatcatac	atctccctca
1081	atgcggccctc	caactcgccg	tcccaaatac	aggctgcctt	ggacaatgcg	ggaaagat
1141	tgagcgtgac	taaaaccggc	cccga	ttttggccca	gaggcccgt	gaggacattc
1201	ccagcaatcg	gatttataaa	atttggaaac	taaacgggt	cgatccc	atgcggct
1261	ccgtctttct	gggatggggcc	acggaaaatg	tggcaagag	gaacaccatc	tggctgtttt
1321	ggcctgcaac	taccggaaag	accaacatcg	cgaggccat	agccacact	gtgc
1381	acgggtgcgt	aaactggacc	aatgagaact	ttcccttcaa	cgactgtgtc	gacaagatgg
1441	tgatcttgg	ggaggagggg	aagatgaccg	ccaaagg	ggatcgcc	aaaggccattc
1501	tcggagaaag	caagg	gtggaccaga	aatgcaagt	ctcg	cccgat
1561	ctcccggtat	cgtcacctcc	aacacaaca	tgtgc	gcccgt	gattgacggg
1621	ccttcgaaca	ccagcagccg	ttgcaagacc	ggatgttcaa	atttgaactc	acccggccgtc

**FIGURE 15B**

1681 tggatcatga ctttggaaag gtcaccaagg agaaggtaa agacttttc cgggtggcaa  
1741 aggatcacgt ggttgggtg gagcatgaat tctacgtcaa aaagggtgg accaagaaaa  
1801 gaccggccc cagtgcac gataaagtg agccaaaacg ggtgcggag tcagttgcgc  
1861 agccatcgac gtcagacgag gaagcttcga tcaactacgc agacaggtaa caaacaaat  
1921 gttctcgta cgtggcatg aatctgtatgc tgtttccctg cagacaatgc gagagaatga  
1981 atcagaattc aaatatctgc ttcaactcacg gacagaaaga ctgttttagag tgcttcccg  
2041 tgtcagaatc tcaacccgtt tctgtcgta aaaaggcgt aaaaactgt tgctacattc  
2101 atcatatcat gggaaagggtg ccagacgcgtt gcactgcctg cgatctggtc aatgtggatt  
2161 tggatgactg catcttgaa caataaatga tttaaatcg gtatggctgc cgatgttat  
2221 cttccagatt ggctcgagga cactcttctt gaaggaaataa gacagtggtg gaagactcaa  
2281 cctggccac caccacaaaa gcccgcagag cggcataaagg cggcatcgg  
2341 cttcctgggt acaagtacctt cggacccccc aacggactcg acaaggagaa gccggtaac  
2401 gaggcagacg ccggggccct cggcaccta caaaggctac gaccggcagc tcgacaggg  
2461 agacaacccg tacctcaagt acaaccacgc cgacggggag tttcaggagc gccttaaaa  
2521 agatacgtct tttggggca acctcgacg aacgtctt caggcggaaa agagggttct  
2581 tgaacctctg ggcctgggtt aggaacctgt taagacggct ccggggaaaa agaggccggt  
2641 agaggcactt cctgtggcgc cagactccctc ctcggaaacc gaaaagggg gccaggagg  
2701 tgcaagaaaa agattgaatt ttggtcagac tggagacgc gactcagtac ctgaccccc  
2761 gcctctcggc cagccaccag cagccccc tggctctggaa actaatacga tggctacagg  
2821 cagtggcga ccaatggcag acaataacga gggcggcgc gggatggta attctccgg  
2881 aaattggcat tgcgattcca catggatggg cgacagagtc atcaccacca gcacccgaaac  
2941 ctggggccctg cccacactaca acaaccacctt ctacaaacaa attccagcc aatcaggagg  
3001 ctcgaacgc aatcactact ttggcttacag cacccttgg ggttattttg acttcaacag  
3061 attccactgc cactttcac cacgtgactg gcaaaagactc atcaacaaca actggggatt  
3121 ccgacccaaag agactcaact tcaagctctt taacattcaa taacattcaa gtcggagg tcacggagaa  
3181 tgacggatcg acgacgatgg ccaataacct taccaggcag gttcagggtt ttactgactc  
3241 ggagtaccag cttccgttacg tcctcggtc ggcgcataa ggatgcctcc cggcgttccc  
3301 agcagacgtc ttcatggtgc cacagtatgg ataccctacc ctgaacaacg ggagttaggc

## FIGURE 15C

3361 agtaggacgc tttcattt actgccctgga gtactttccct tctcagatgc tgcgtaccgg  
3421 aaacaactt accttcagct acactttga ggacgttcct ttccacagca gctacgctca  
3481 cagccagagt ctggaccgtc tcataaatcc tctcatcgac cagtaacctgt attacttgag  
3541 cagaacaaac actccaagtg gaaccaccac gcagtcagg cttcaagg cttcaagg ctcaggccgg  
3601 agcgagtgac attcgggacc atgtctggaa ctggcttcct ggaccctgtt accggcaga  
3661 gcgagtatca aagacatctg cggataacaa caacagtgaa tactcgtggaa tactcgtggaa ctggagctac  
3721 caagtaccac ctcaatggca gagactctctt ggtgaatccg gccatggcaa gccacaaggaa  
3781 cgatggaaa aagtttttc ctcaggggg ggttctcatc tttggaaagc aaggctcaga  
3841 gaaaacaat gtgaacattg aaaaggatcat gattacagac gaaggaaaaa tcggaaacaac  
3901 caatcccgtq qctacggggc agtatggttc tgtatctacc aacccatc tttggaaagc aaggctcaga  
3961 acaaggcagct accgcagat tcaacacaca agggttctt ccaggcatgg tctggcagga  
4021 cagagatgtg taccttcagg gccccatctg ggcaaaagatt ccacacacgg acggacatt  
4081 tcaccctctt cccctcatgg gtggattcgg acttaaacac cctctccac agattctcat  
4141 caagaacacc cccgttacctg cgaatccccc gaccacccccc gatgtggcaa agtttgcttc  
4201 cttcatcaca cagtagtccca cgggacacgg tcagcggtgg aatccactac ttcaactac  
4261 agaaaaacag caaacgctgg aatccccaaa ttcaactac ttcaactac aacaagtctg  
4321 ttaatcggtt actttaccgtg gataactaatg gcggttattc agggccctcgcc cccattggca  
4381 ccagataacct gactcgtaat ctgttaattgc ttgttaatca ataaaccgtt taattcggtt  
4441 cagttgaact ttgggtctgt cgttattctt ttttatcttag ttccatggc tacgttagata  
4501 agtagcatgg cgggttaatc attaactaca agaaaccctt agtgtatggag ttggccactc  
4561 cctctctggc cgctcgctcg ctcactggg cgggggacc aaaggctggcc cgacggccgg  
4621 gctttggcccg ggcggccctca gtgaggcggcag agggggatgtt agggggatgtt gccaa

## FIGURE 16

MPGFYEIVIKVPSSDLGDGHLPGISDSFVNWWVAEKIEWELPPDSMD  
LNLIQEAPLTVAEKLQRDFLTERWRRLVSKAPEALFFVQFEKGESYFHMHHVLVETTGVK  
MVLGRFLSQIREKLIQRTIYRGIEPTLPNWFAVTKTRNGAGGGNKVVDCEYIPNYLLPK  
TQPELQWAUTNMEQYL SACLNLTTERKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRS  
KTSARYMELVGWLVDKGITSEKQWIQEDQASYISFNAAASNSRSQIKAAALDNAGKIMSL  
TKTAPDYLVGQQQPVEDISSNRIYKILELNGYDPQYAAASVFLGWATKKFGKRTNTIWLFG  
PATTGKTNIAEAIATVPFYGCVNWTNENFPFNDCVDKMVIWEEGKMTAKVVESAKA  
ILGGSKVRVDQKCKSSAQIDPTPVITSNTNMCVIDGNSTTFEHQQPLQDRMFKFEL  
TRRLDHDFGKVTKQEVKDFFRWAKDHVVEHEFYVKKGAKKRPAPSADTISEPKRV  
RESVAQPSTSDAEASINYADRYQNKCSRHVGMNLMLFPCRQCERMNQNSNICFTHGQK  
DCLECFPVSESPVSVVKAYQKLCYIHHIMGKVPDACTACDLVNVLDLDDCIFEQ